

Coast Guard, DOT

§ 52.01-2

- 52.25-7 Electric boilers (modifies PEB-1 through PEB-19).
52.25-10 Organic fluid vaporizer generators (modifies PVG-1 through PVG-12).
52.25-15 Fired thermal fluid heaters.
52.25-20 Exhaust gas boilers.

AUTHORITY: 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

SOURCE: CGFR 68-82, 33 FR 18815, Dec. 18, 1968, unless otherwise noted.

Subpart 52.01—General Requirements

§ 52.01-1 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than that specified in paragraph (b) of this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and make the material available to the public. All approved material is on file at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC, and at the U.S. Coast Guard, Office of Design and Engineering Standards (G-MSE), 2100 Second Street SW., Washington, DC 20593-0001 and is available from the sources indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this part and the sections affected are:

American Society of Mechanical Engineers (ASME)

United Engineering Center, 345 East 47th Street, New York, NY 10017
Boiler and Pressure Vessel Code, Section I, Power Boilers, July 1989 with 1989 addenda 52.01-2; 52.01-5; 52.01-50; 52.01-90; 52.01-95; 52.01-100; 52.01-105; 52.01-110; 52.01-115; 52.01-120; 52.01-135; 52.01-140; 52.01-145; 52.05-1; 52.05-15; 52.05-20; 52.05-30; 52.05-45; 52.15-1; 52.15-5; 52.20-1; 52.20-17; 52.20-25; 52.25-3; 52.25-5; 52.25-7; 52.25-10

[CGD 88-032, 56 FR 35821, July 29, 1991, as amended by CGD 95-072, 60 FR 50462, Sept. 29, 1995; CGD 96-041, 61 FR 50727, Sept. 27, 1996]

§ 52.01-2 Adoption of section I of the ASME Code.

(a) Main power boilers and auxiliary boilers shall be designed, constructed,

inspected, tested, and stamped in accordance with section I of the ASME (American Society of Mechanical Engineers) Code, as limited, modified, or replaced by specific requirements in this part. The provisions in the appendix to section I of the ASME Code are adopted and shall be followed when the requirements in section I make them mandatory. For general information Table 52.01-1(a) lists the various paragraphs in section I of the ASME Code which are limited, modified, or replaced by regulations in this part.

TABLE 52.01-1(A)—LIMITATIONS AND MODIFICATIONS IN THE ADOPTION OF SECTION I OF THE ASME CODE

Paragraphs in section I, ASME Code ¹ and disposition	Unit of this part
PG-1 replaced by	54.01-5(a)
PG-5 through PG-13 modified by	52.01-90
PG-16 through PG-31 modified by	52.01-95
PG-32 through PG-39 modified by	52.01-100
PG-42 through PG-55 modified by	52.01-100
PG-58 and PG-59 modified by	52.01-105
PG-60 modified by	52.01-110
PG-61 modified by	52.01-115 (56.50-30)
PG-67 through PG-73 modified by	52.01-120
PG-90 through PG-100 modified by	52.01-135 (52.01-95)
PG-91 modified by	52.01-135(b)
PG-99 modified by	52.01-135(c)
PG-100 modified by	52.01-95(e)
PG-104 through PG-113 modified by	52.01-140(a)
PG-112 and PG-113 modified by	52.01-145
PW-1 through PW-54 modified by	52.05-1
PW-10 modified by	52.05-15
PW-11.1 modified by	52.05-20
PW-16 modified by	52.05-30
PW-41 modified by	52.05-20, 52.05-45
PWT-1 through PWT-15 modified by	52.15-1
PWT-9 modified by	52.15-5
PWT-9.2 replaced by	52.15-5(b)
PWT-11 modified by	52.15-5
PWT-11.3 replaced by	52.15-5(b)
PFT-1 through PFT-49 modified by	52.20-1
PFT-44 modified by	52.20-17
PFT-46, modified by	52.20-25
PFH-1 modified by	52.25-3
PMB-1 through PMB-21 modified by	52.25-5
PEB-1 through PEB-19 modified by	52.25-7
PVG-1 through PVG-12 modified by	52.25-10
A-19 through A-21 modified by	52.01-50

¹The references to specific provisions in the ASME Code are coded. The first letter "P" refers to section I, while the letter "A" refers to the appendix to section I. The letter or letters following "P" refer to a specific subsection of section I. The number following the letter or letters refers to the paragraph so numbered in the text.

(b) References to the ASME Code, such as paragraph PG-1, indicate:

P=Section I, Power Boilers ASME Code.

G=Subsection—General.

1=Paragraph 1.

(c) When a section or paragraph of the regulations in this part relates to material in section I of the ASME Code, the relationship with the code will be shown immediately following the heading of the section or at the beginning of the paragraph as follows:

(1) (Modifies P _____.) This indicates that the material in P _____ is generally applicable but is being altered, amplified or augmented.

(2) (Replaces P _____.) This indicates that P _____ does not apply.

(3) (Reproduces P _____.) This indicates that P _____ is being identically reproduced for convenience, not for emphasis.

[CGFR 68-82, 33 FR 18815, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9975, June 17, 1970; CGD 81-79, 50 FR 9431, Mar. 8, 1985. Redesignated and amended by CGD 88-032, 56 FR 35821, July 29, 1991]

§ 52.01-3 Definitions of terms used in this part.

(a) *Types of boilers*—(1) *Main power boiler*. A main power boiler is a steam boiler used for generating steam for main propulsion.

(2) *Auxiliary or donkey boiler*. An auxiliary or donkey boiler is a steam boiler used for all purposes, including emergency propulsion, for which steam may be required other than main propulsion.

(3) *Watertube boiler*. A watertube boiler is a steam boiler in which the boiler tubes contain water and steam. The heat is applied to the outside surface of the tubes.

(4) *Internally fired firetube boiler (scotch boiler)*. An internally fired firetube boiler is a steam boiler containing furnaces, one or more combustion chambers and tubes or flues, which are surrounded by water and through which the products of combustion pass from the furnace to the uptake. In such boilers no part of the shell is in contact with the fire or products of combustion.

(5) *Externally fired firetube or flue boiler (horizontal return tubular)*. An externally fired firetube or flue boiler is a steam boiler, part of the outer shell of which is exposed to fire or to the products of combustion, and containing flues through which such products pass from the furnace to the uptake.

(6) *High temperature water boiler*. A high temperature water boiler is a boiler containing water at a temperature exceeding 250 °F.

(7) *Packaged boiler*. A packaged boiler is a steam boiler equipped, and shipped complete with fuel burning equipment, mechanical draft equipment, feed water apparatus and all necessary controls for manual or automatic operation, all completely mounted on a common base and requiring only to be connected to fuel, water and electric supplies to be ready for use.

(8) *Fired steam boiler*. A pressure vessel in which steam is generated by the application of heat resulting from the combustion of fuel is classed as a fired steam boiler.

(9) *Unfired steam boiler*. A pressure vessel in which steam is generated by means other than fuel combustion is classed as an unfired steam boiler. (See § 54.01-10 of this subchapter.)

(10) *Hybrid boiler*. A hybrid boiler is a steam boiler whose design employs features from both watertube and firetube boilers.

(b) *Parts of boilers*—(1) *Shell*. The shell is the structure forming the outer envelope of a boiler drum, or pressure vessel consisting of one or more plates properly joined (or of seamless construction) as specified in this part. This does not include tube sheets or heads.

(2) *Heads*. The heads are the ends of a boiler or pressure vessel. They may be flat or dished, stayed or unstayed.

(i) *Dished heads*. Dished heads are heads formed to a segment of a sphere or to a hemispherical or elliptical section and may be attached to the shell so that the pressure will be either on the concave or on the convex side.

(ii) *Stayed heads*. Stayed heads are heads supported in whole or in part by stays, furnaces, flues, tubes, etc.

(3) *Water wall*. A water wall is a series of tubes or elements spaced along or integral with a wall of a furnace to protect the wall and provide additional heating surface.

(4) *Header*. A header is a hollow forging, pipe, or welded plate of cylindrical, square, or rectangular cross section, serving as a manifold to which tubes are connected.